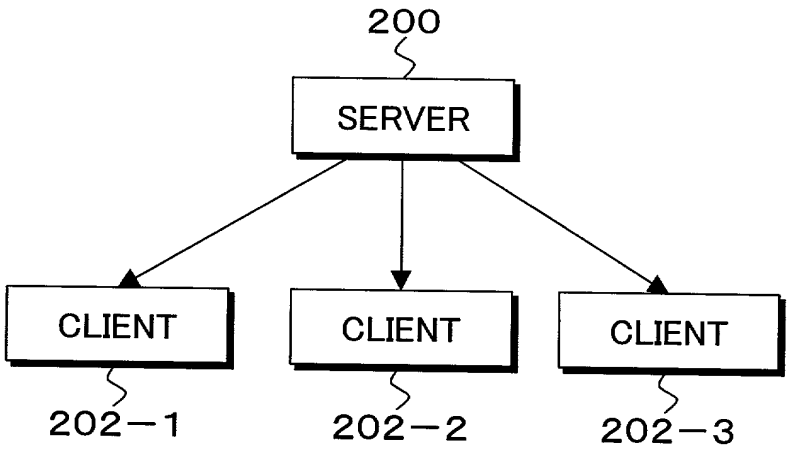
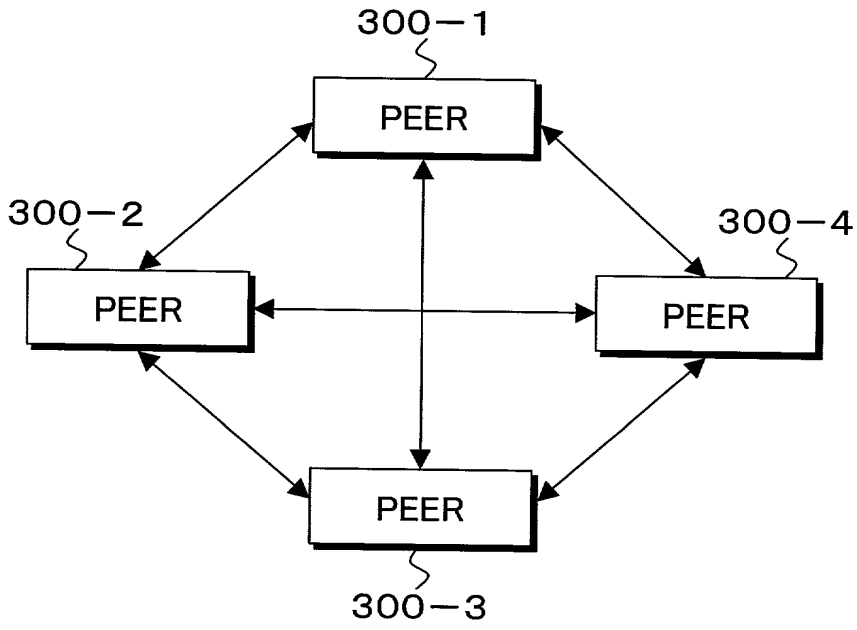
PRIOR ART
FIG. 1A



PRIOR ART
FIG. 1B



2004-02-05 09:04:02

FIG. 2

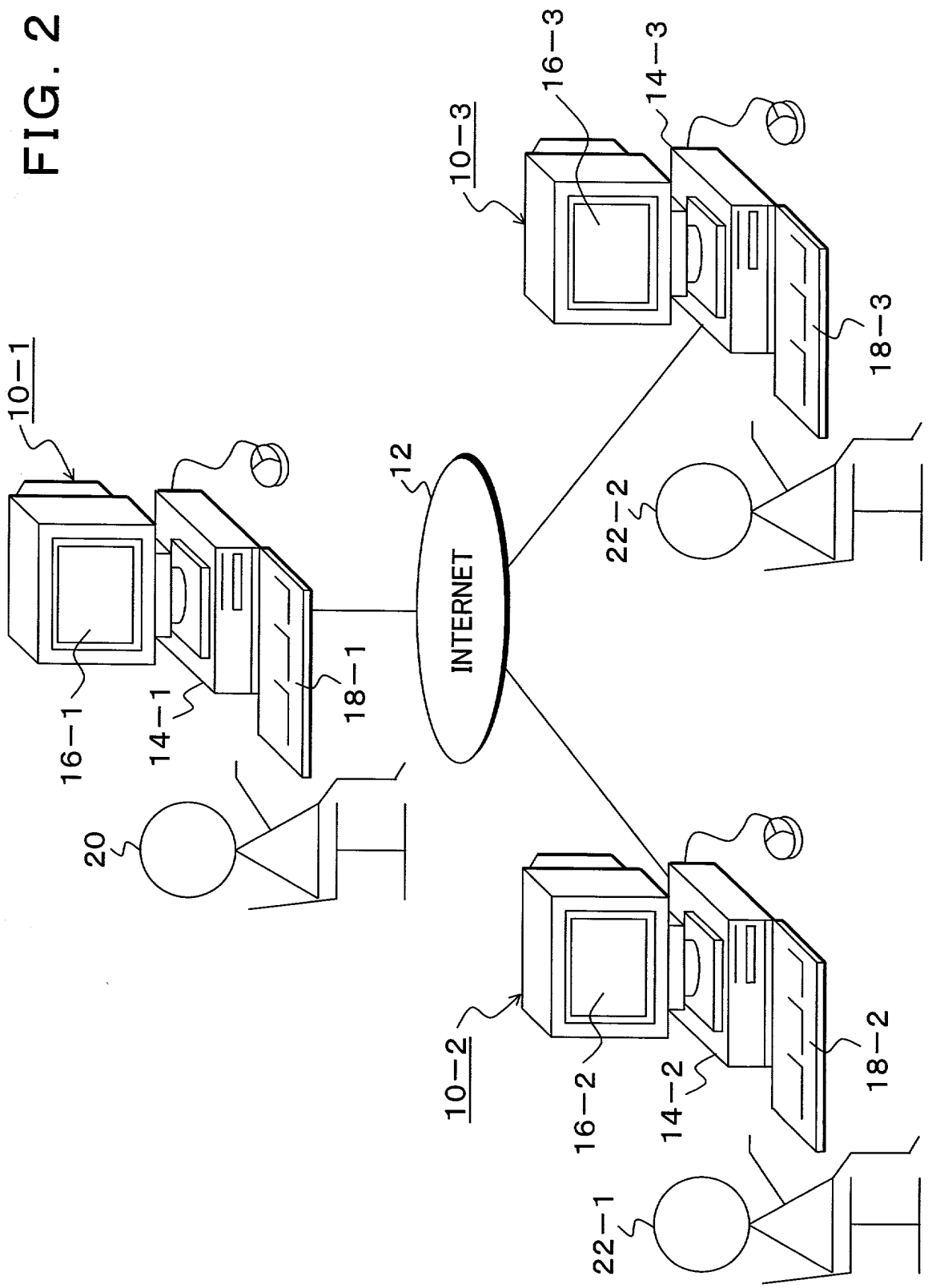

10-1
16-1
14-1
18-1
20
12
INTERNET
10-3
16-3
14-3
18-3
22-2
10-2
16-2
14-2
18-2
22-1

FIG. 3

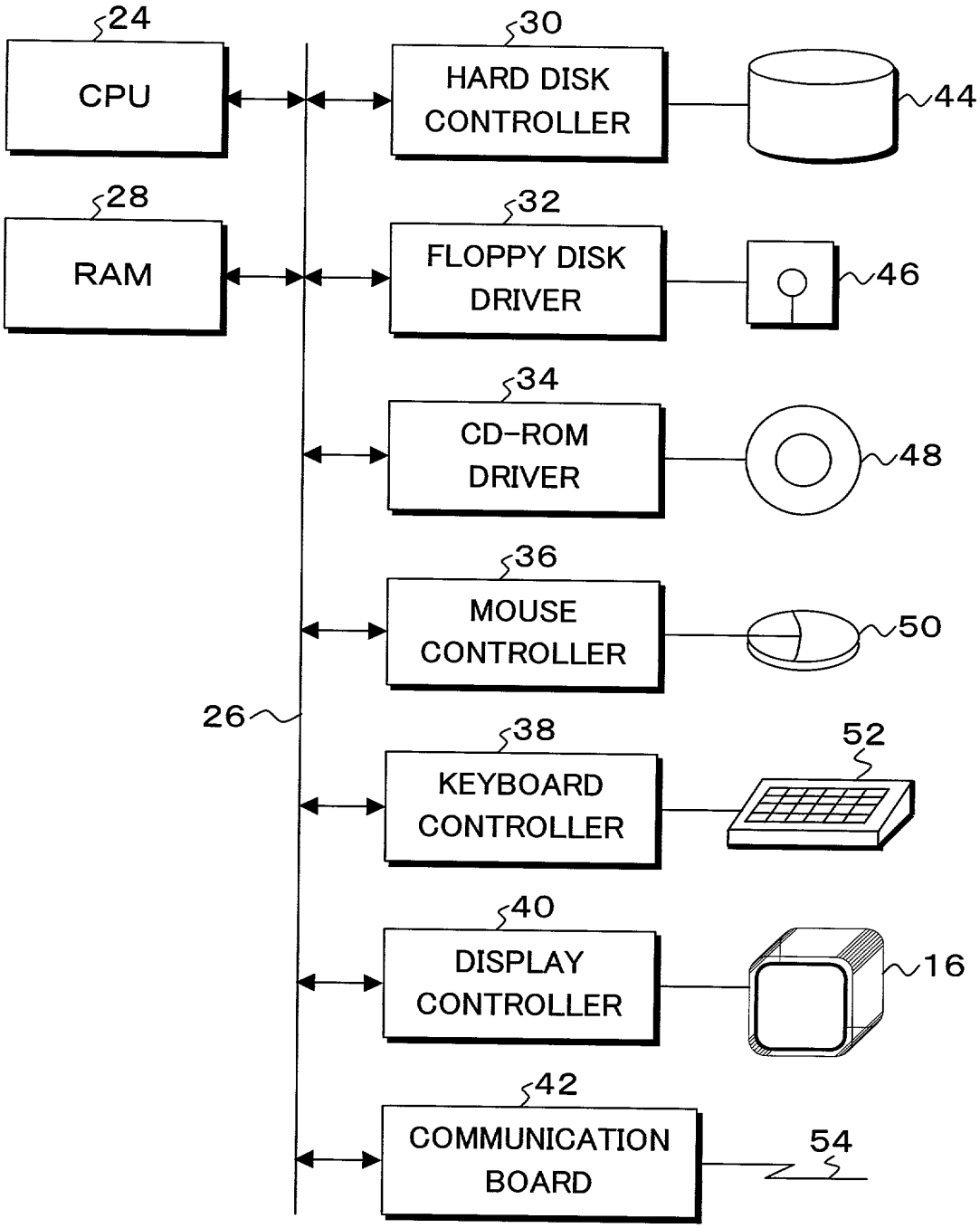

24
CPU
28
RAM
26
30
HARD DISK CONTROLLER
44
32
FLOPPY DISK DRIVER
46
34
CD-ROM DRIVER
48
36
MOUSE CONTROLLER
50
38
KEYBOARD CONTROLLER
52
40
DISPLAY CONTROLLER
16
42
COMMUNICATION BOARD
54

FIG. 4

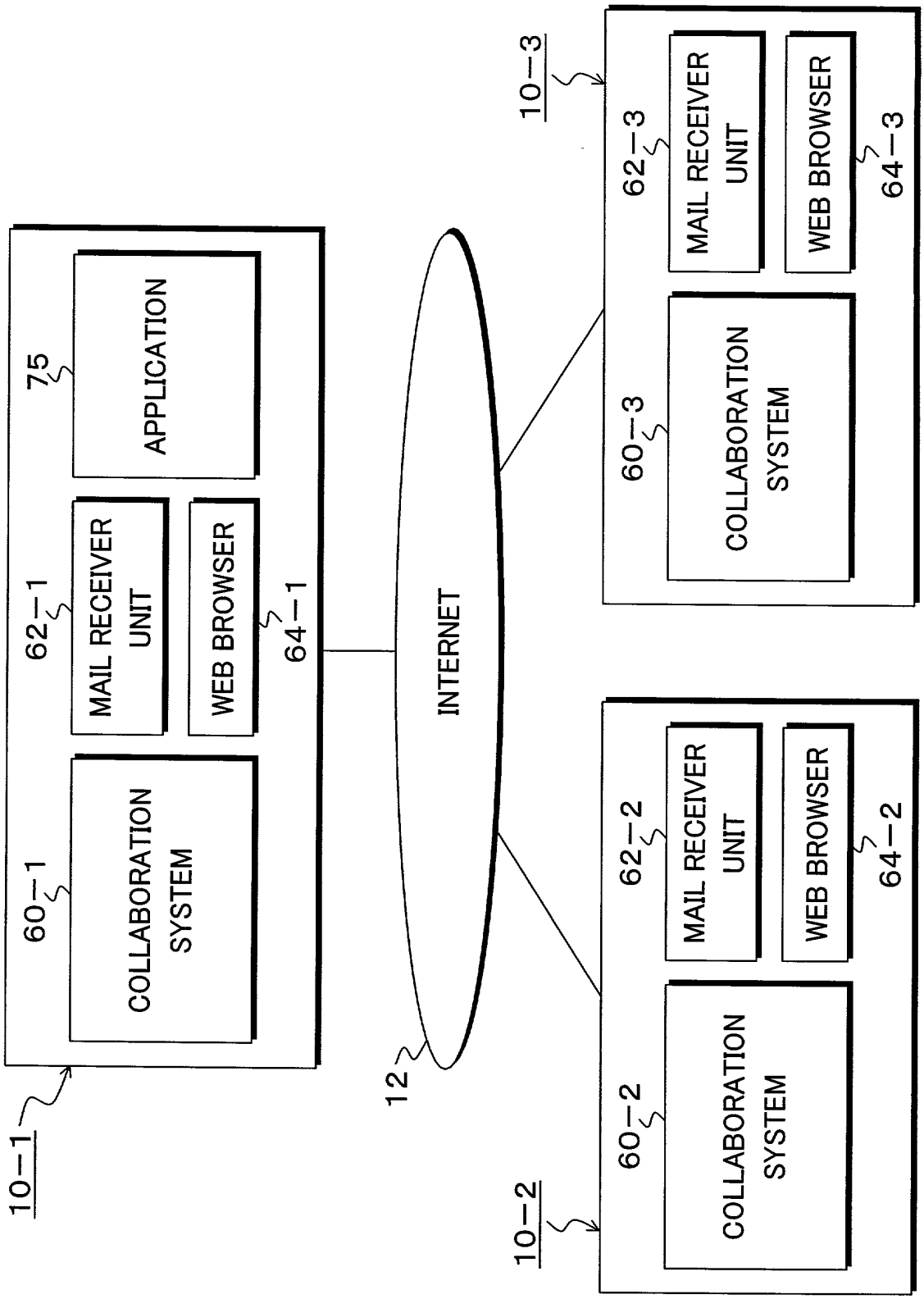

10-1
60-1
COLLABORATION SYSTEM
62-1
MAIL RECEIVER UNIT
WEB BROWSER
64-1
75
APPLICATION
12
INTERNET
10-2
60-2
COLLABORATION SYSTEM
62-2
MAIL RECEIVER UNIT
WEB BROWSER
64-2
10-3
60-3
COLLABORATION SYSTEM
62-3
MAIL RECEIVER UNIT
WEB BROWSER
64-3

FIG. 5

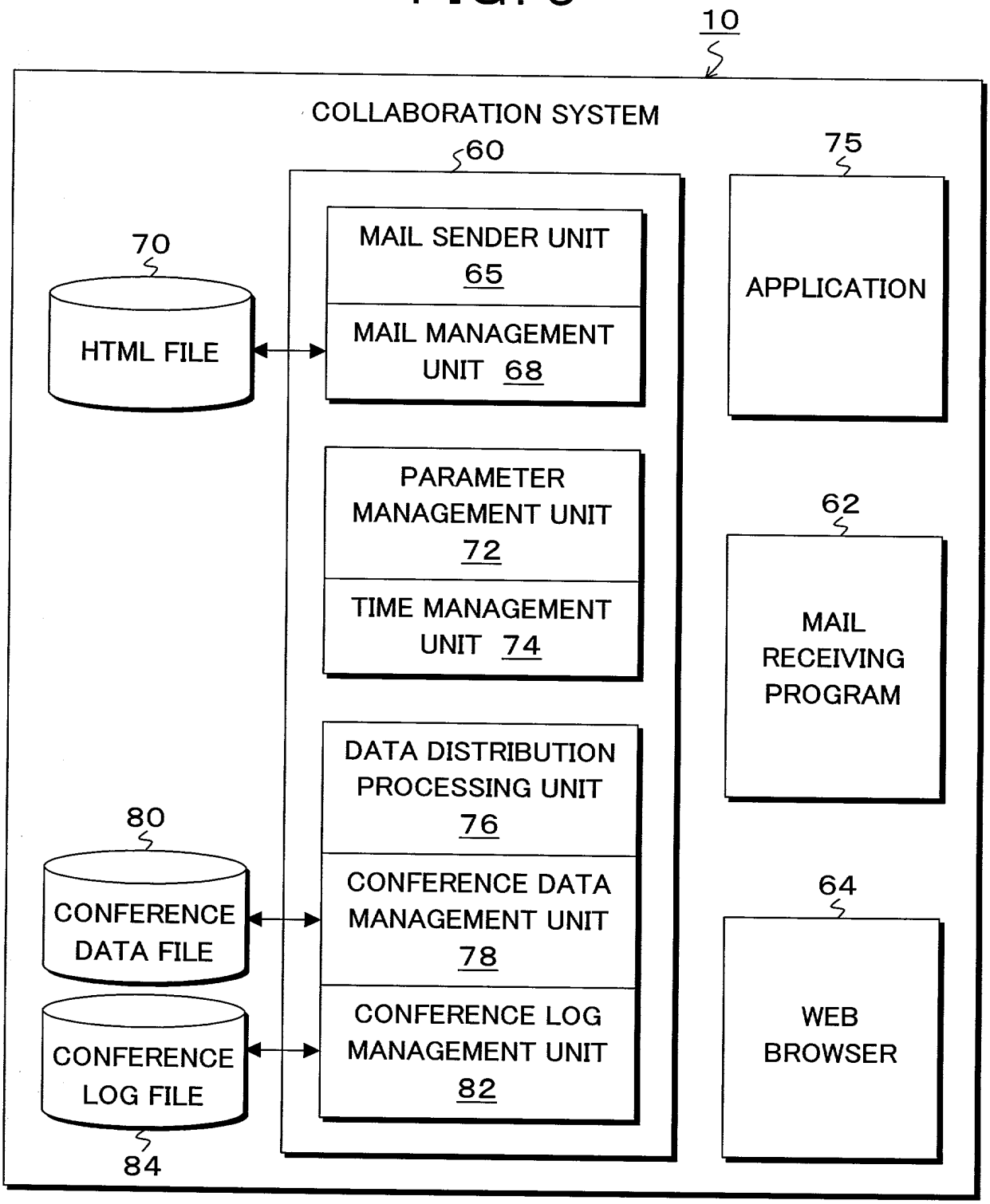

10
COLLABORATION SYSTEM
60
75
70
HTML FILE
MAIL SENDER UNIT
65
MAIL MANAGEMENT
UNIT 68
APPLICATION
PARAMETER
MANAGEMENT UNIT
72
TIME MANAGEMENT
UNIT 74
62
MAIL
RECEIVING
PROGRAM
DATA DISTRIBUTION
PROCESSING UNIT
76
80
CONFERENCE
DATA FILE
CONFERENCE DATA
MANAGEMENT UNIT
78
64
CONFERENCE
LOG FILE
CONFERENCE LOG
MANAGEMENT UNIT
82
WEB
BROWSER
84

FIG. 6

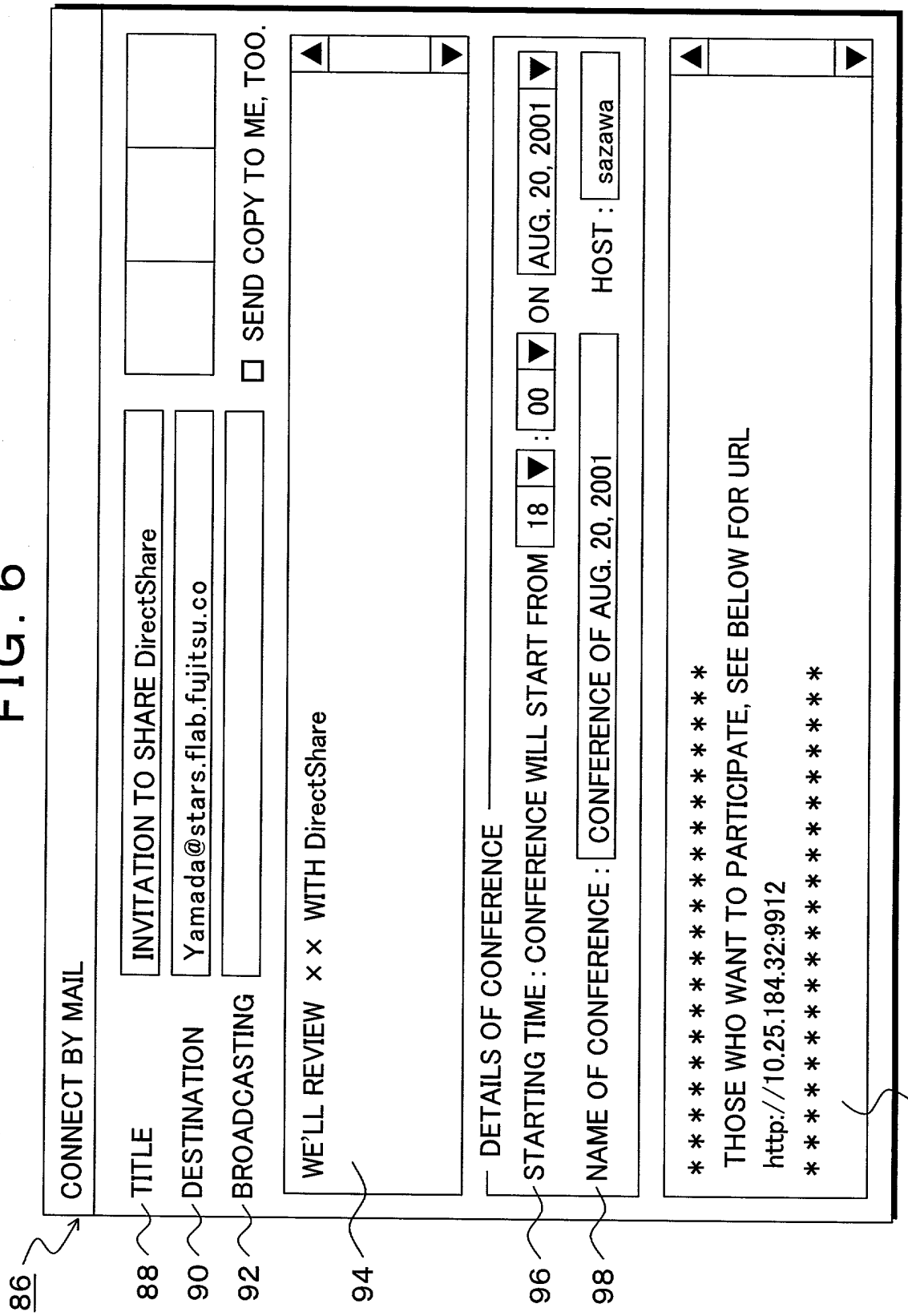

86
CONNECT BY MAIL
88
TITLE
INVITATION TO SHARE DirectShare
90
DESTINATION
Yamada@stars.flab.fujitsu.co
92
BROADCASTING
SEND COPY TO ME, TOO.
94
WE'LL REVIEW ×× WITH DirectShare
96
DETAILS OF CONFERENCE
STARTING TIME : CONFERENCE WILL START FROM 18 : 00 ON AUG. 20, 2001
98
NAME OF CONFERENCE : CONFERENCE OF AUG. 20, 2001
HOST : sazawa
****
THOSE WHO WANT TO PARTICIPATE, SEE BELOW FOR URL
http://10.25.184.32:9912
****
100 URL FOR PARTICIPATING IN CONFERENCE

FIG. 7

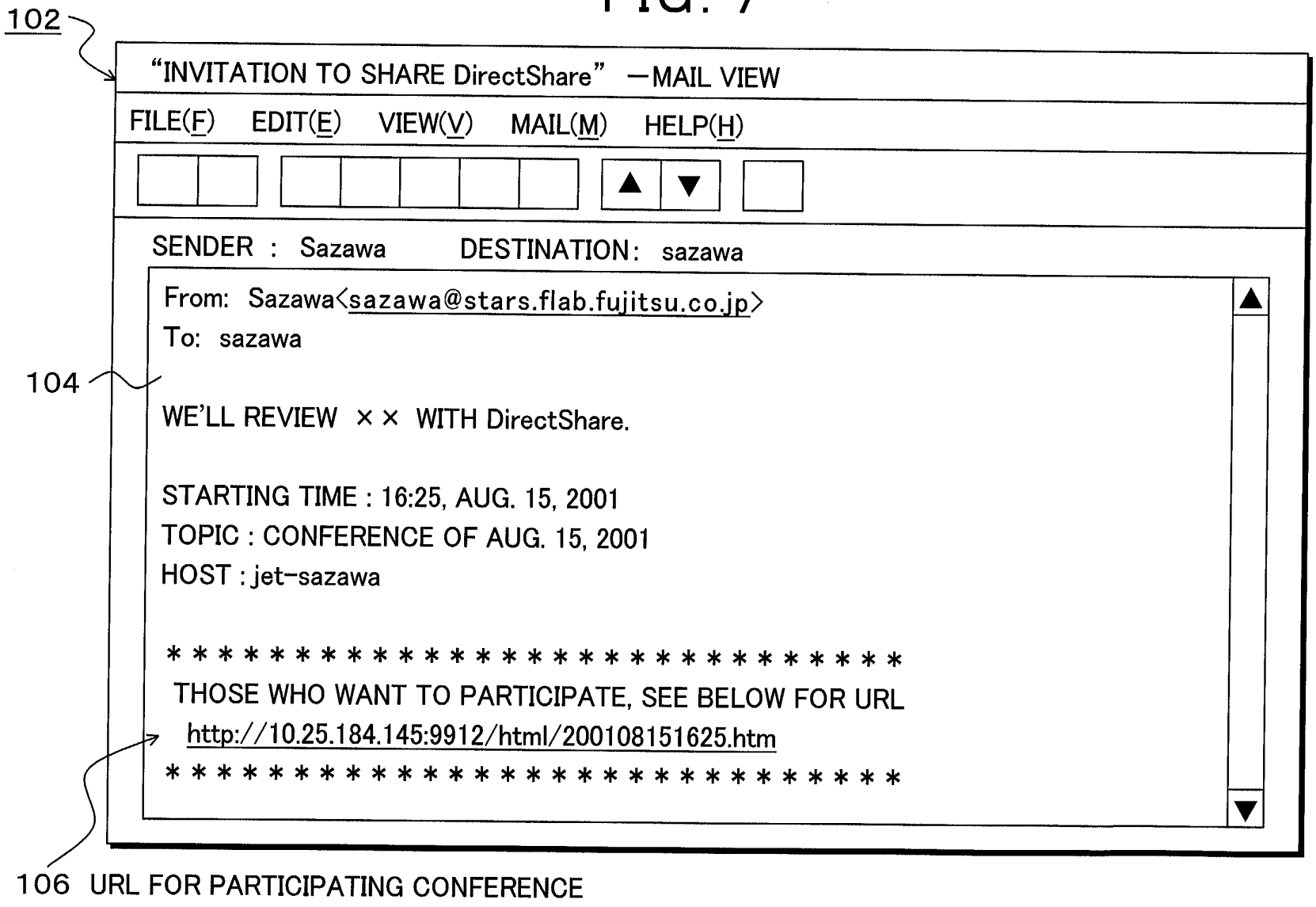

102
"INVITATION TO SHARE DirectShare" —MAIL VIEW
FILE(F) EDIT(E) VIEW(V) MAIL(M) HELP(H)
SENDER : Sazawa DESTINATION: sazawa
From: Sazawa<sazawa@stars.flab.fujitsu.co.jp>
To: sazawa
104
WE'LL REVIEW ×× WITH DirectShare.
STARTING TIME : 16:25, AUG. 15, 2001
TOPIC : CONFERENCE OF AUG. 15, 2001
HOST : jet-sazawa
* *
THOSE WHO WANT TO PARTICIPATE, SEE BELOW FOR URL
http://10.25.184.145:9912/html/200108151625.htm
* *
106 URL FOR PARTICIPATING CONFERENCE

FIG. 8A

100

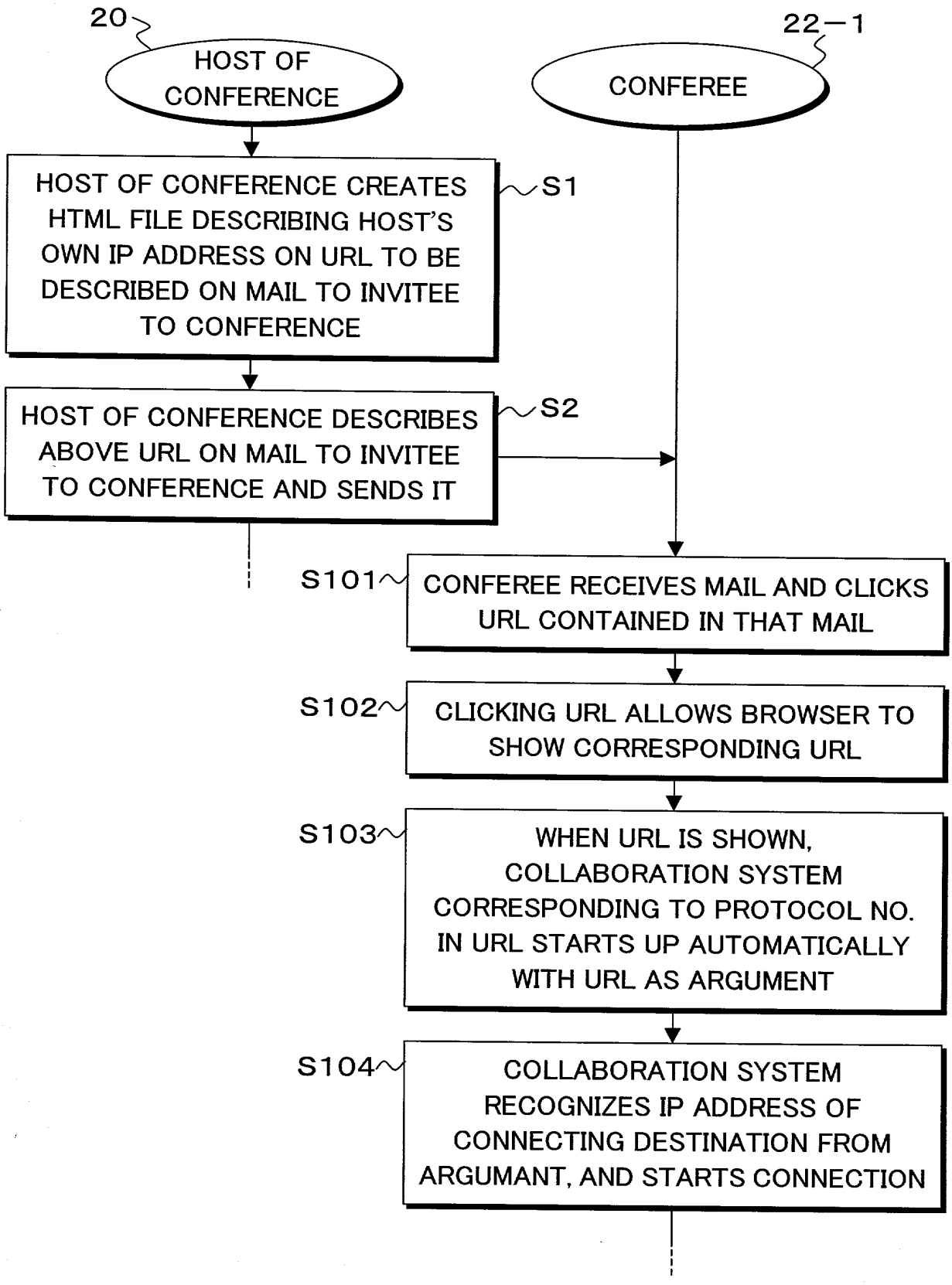
```
**********************************
 THOSE WHO WANT TO PARTICIPATE, SEE BELOW FOR URL
  http://10.25.184.145:9912/html/200108151625.htm
**********************************
```

FIG. 8B

70

```
<metahttp-equiv="Refresh"
content="1;URL=FjDirectShare:10.25.184.145
```

FIG. 9



JP2003-050802

FIG. 10

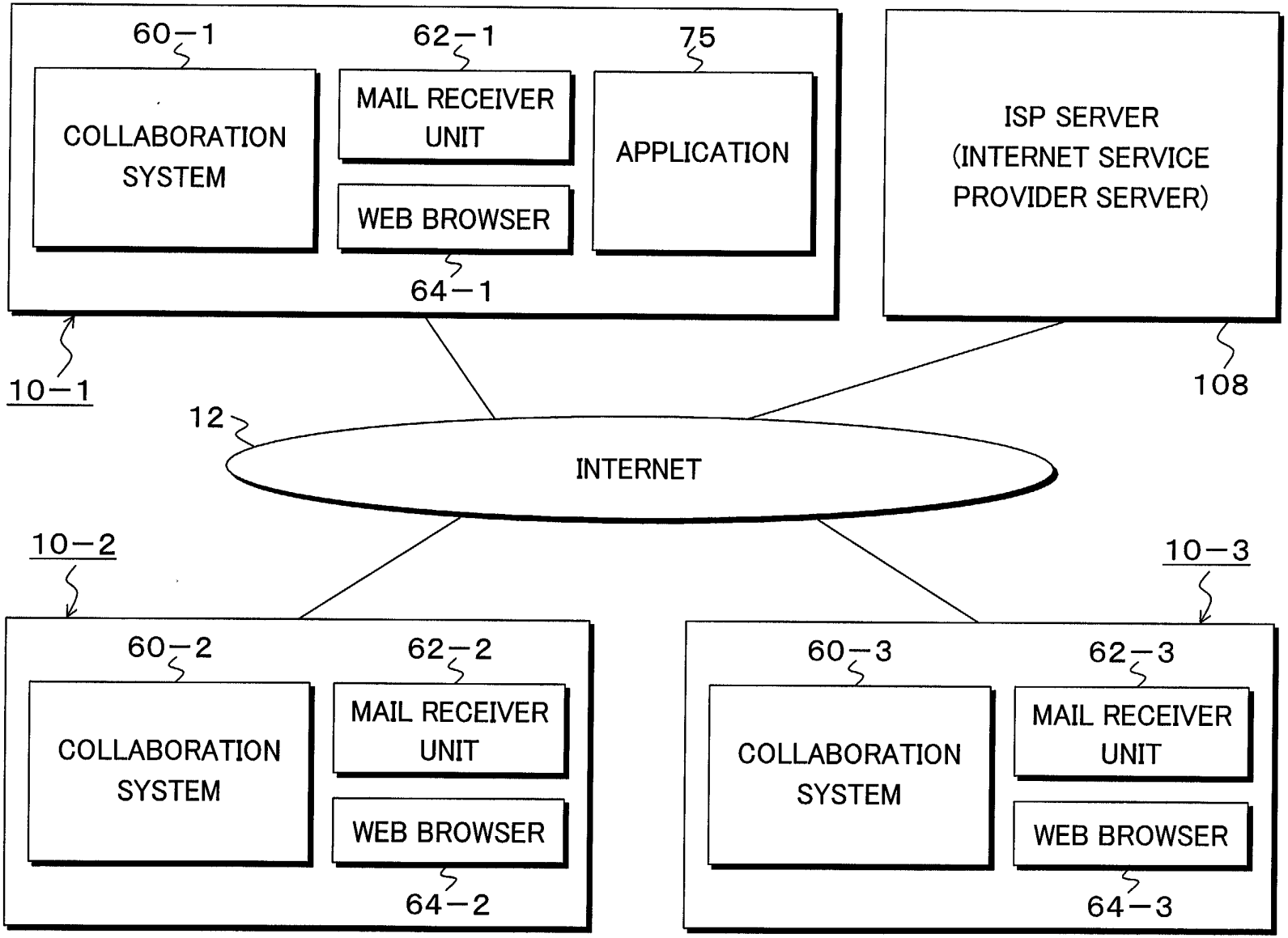

60-1
62-1
75
COLLABORATION SYSTEM
MAIL RECEIVER UNIT
APPLICATION
WEB BROWSER
64-1
ISP SERVER (INTERNET SERVICE PROVIDER SERVER)
10-1
108
12
INTERNET
10-2
10-3
60-2
62-2
COLLABORATION SYSTEM
MAIL RECEIVER UNIT
WEB BROWSER
64-2
60-3
62-3
COLLABORATION SYSTEM
MAIL RECEIVER UNIT
WEB BROWSER
64-3

FIG. 11A

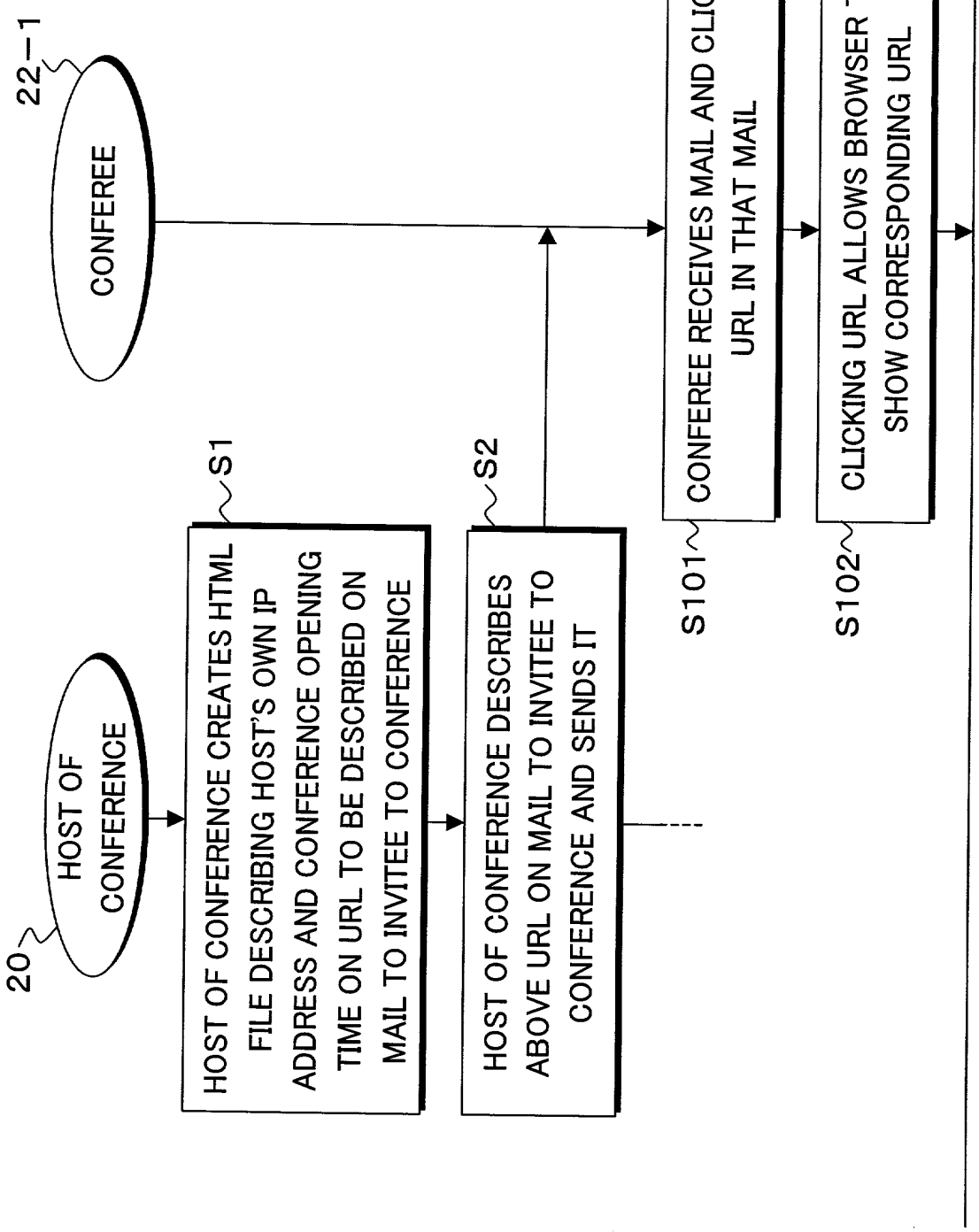

HOST OF CONFERENCE
20
HOST OF CONFERENCE CREATES HTML FILE DESCRIBING HOST'S OWN IP ADDRESS AND CONFERENCE OPENING TIME ON URL TO BE DESCRIBED ON MAIL TO INVITEE TO CONFERENCE
S1
HOST OF CONFERENCE DESCRIBES ABOVE URL ON MAIL TO INVITEE TO CONFERENCE AND SENDS IT
S2
CONFEREE
22-1
S101
CONFEREE RECEIVES MAIL AND CLICKS URL IN THAT MAIL
S102
CLICKING URL ALLOWS BROWSER TO SHOW CORRESPONDING URL

FIG. 11B

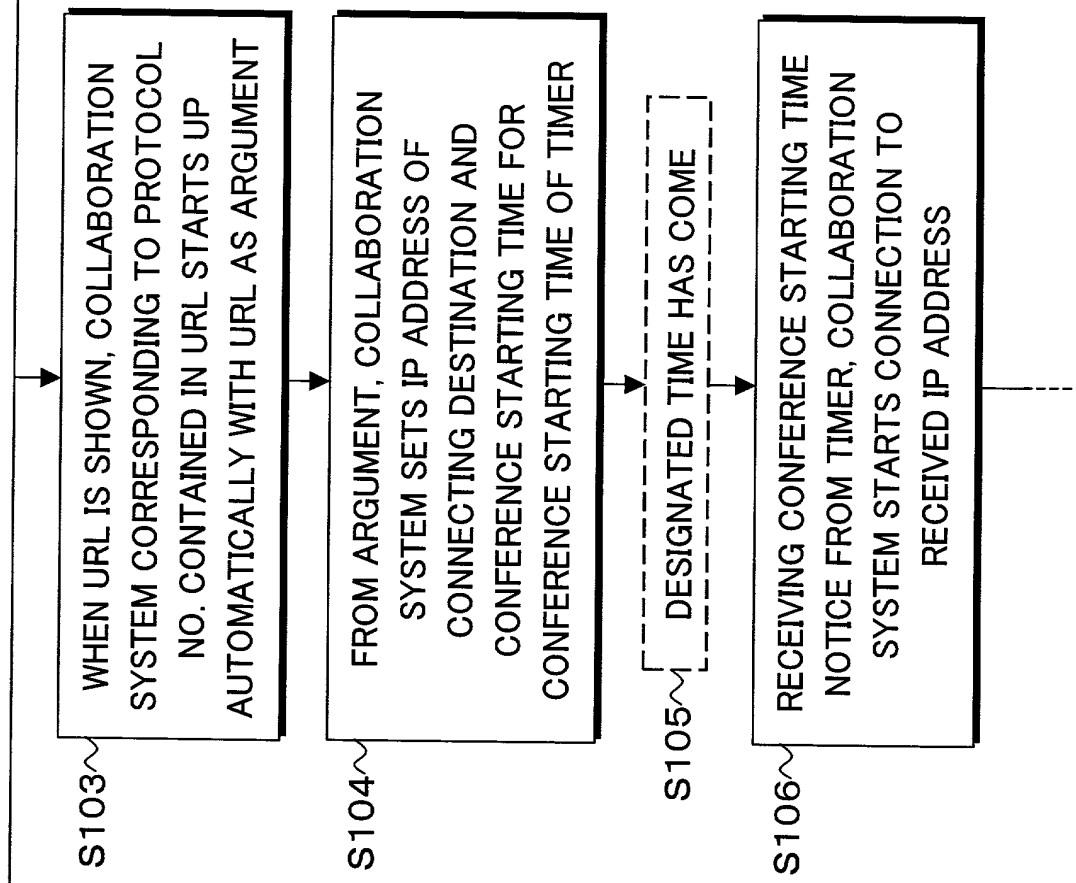

S103
WHEN URL IS SHOWN, COLLABORATION SYSTEM CORRESPONDING TO PROTOCOL NO. CONTAINED IN URL STARTS UP AUTOMATICALLY WITH URL AS ARGUMENT
S104
FROM ARGUMENT, COLLABORATION SYSTEM SETS IP ADDRESS OF CONNECTING DESTINATION AND CONFERENCE STARTING TIME FOR CONFERENCE STARTING TIME OF TIMER
S105
DESIGNATED TIME HAS COME
S106
RECEIVING CONFERENCE STARTING TIME NOTICE FROM TIMER, COLLABORATION SYSTEM STARTS CONNECTION TO RECEIVED IP ADDRESS

FIG. 12A

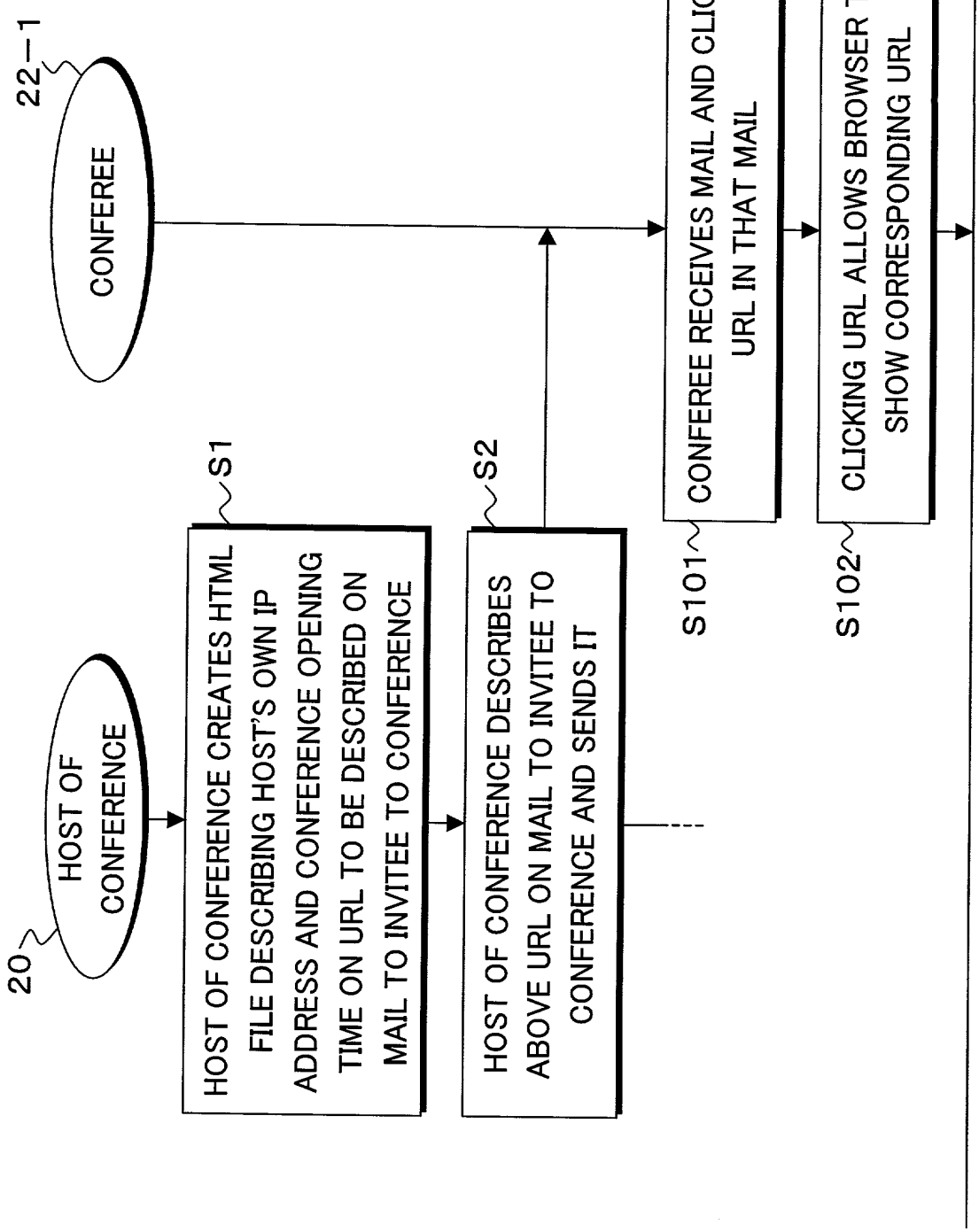

HOST OF CONFERENCE
20
HOST OF CONFERENCE CREATES HTML FILE DESCRIBING HOST'S OWN IP ADDRESS AND CONFERENCE OPENING TIME ON URL TO BE DESCRIBED ON MAIL TO INVITEE TO CONFERENCE
S1
HOST OF CONFERENCE DESCRIBES ABOVE URL ON MAIL TO INVITEE TO CONFERENCE AND SENDS IT
S2
CONFEREE
22-1
CONFEREE RECEIVES MAIL AND CLICKS URL IN THAT MAIL
S101
CLICKING URL ALLOWS BROWSER TO SHOW CORRESPONDING URL
S102

FIG. 12B

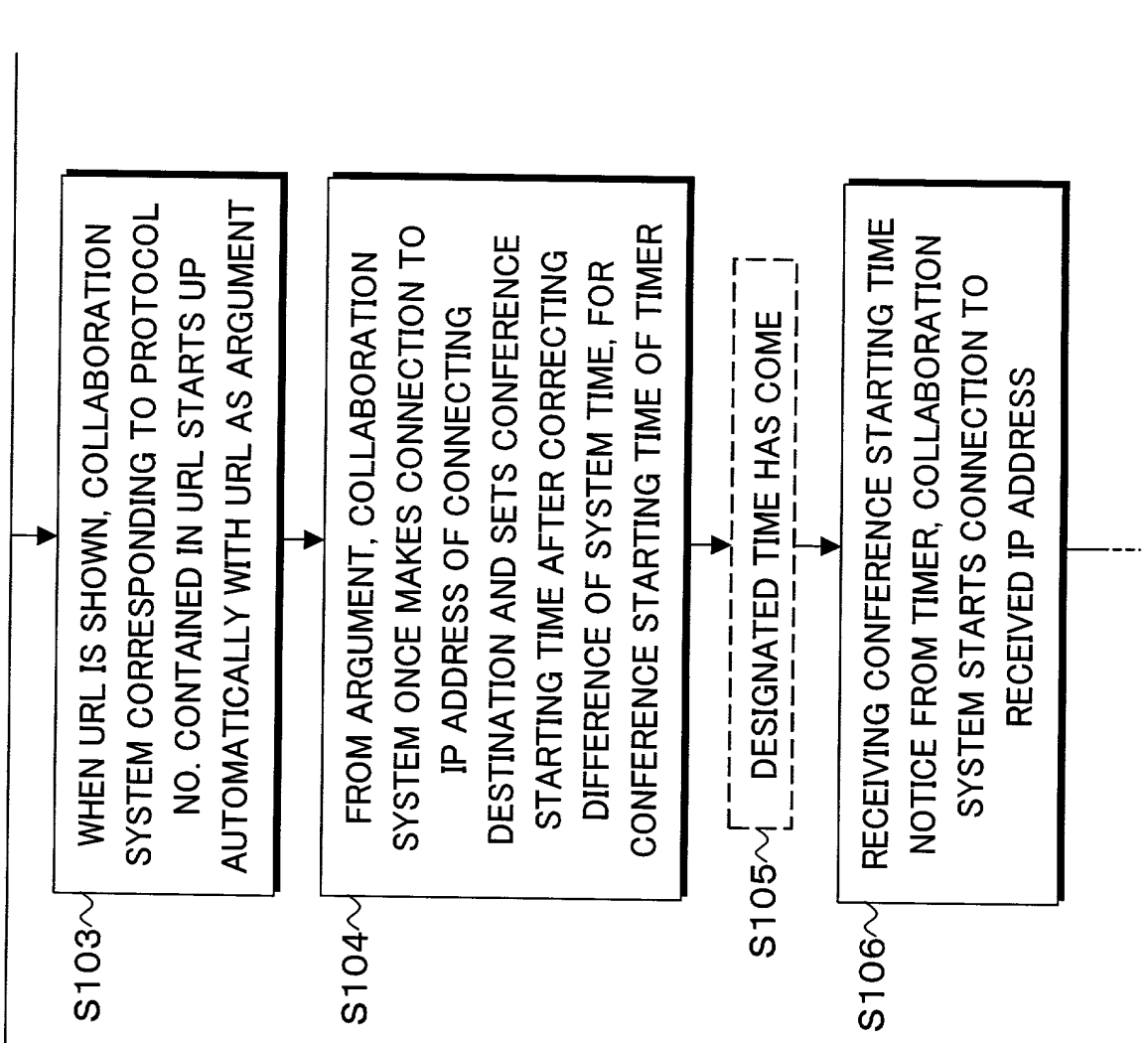

S103
WHEN URL IS SHOWN, COLLABORATION SYSTEM CORRESPONDING TO PROTOCOL NO. CONTAINED IN URL STARTS UP AUTOMATICALLY WITH URL AS ARGUMENT
S104
FROM ARGUMENT, COLLABORATION SYSTEM ONCE MAKES CONNECTION TO IP ADDRESS OF CONNECTING DESTINATION AND SETS CONFERENCE STARTING TIME AFTER CORRECTING DIFFERENCE OF SYSTEM TIME, FOR CONFERENCE STARTING TIME OF TIMER
S105
DESIGNATED TIME HAS COME
S106
RECEIVING CONFERENCE STARTING TIME NOTICE FROM TIMER, COLLABORATION SYSTEM STARTS CONNECTION TO RECEIVED IP ADDRESS

FIG. 13

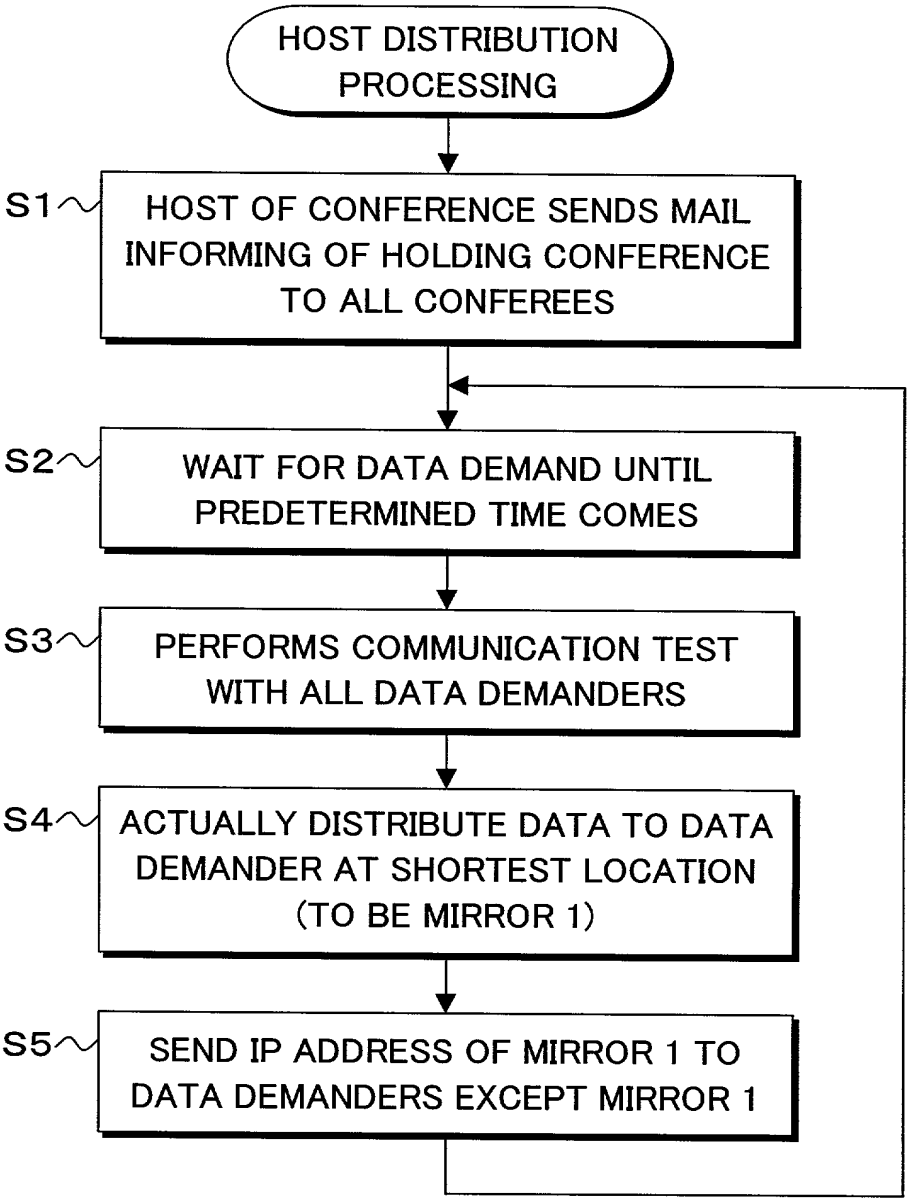

HOST DISTRIBUTION PROCESSING
S1
HOST OF CONFERENCE SENDS MAIL INFORMING OF HOLDING CONFERENCE TO ALL CONFEREES
S2
WAIT FOR DATA DEMAND UNTIL PREDETERMINED TIME COMES
S3
PERFORMS COMMUNICATION TEST WITH ALL DATA DEMANDERS
S4
ACTUALLY DISTRIBUTE DATA TO DATA DEMANDER AT SHORTEST LOCATION (TO BE MIRROR 1)
S5
SEND IP ADDRESS OF MIRROR 1 TO DATA DEMANDERS EXCEPT MIRROR 1

FIG. 14

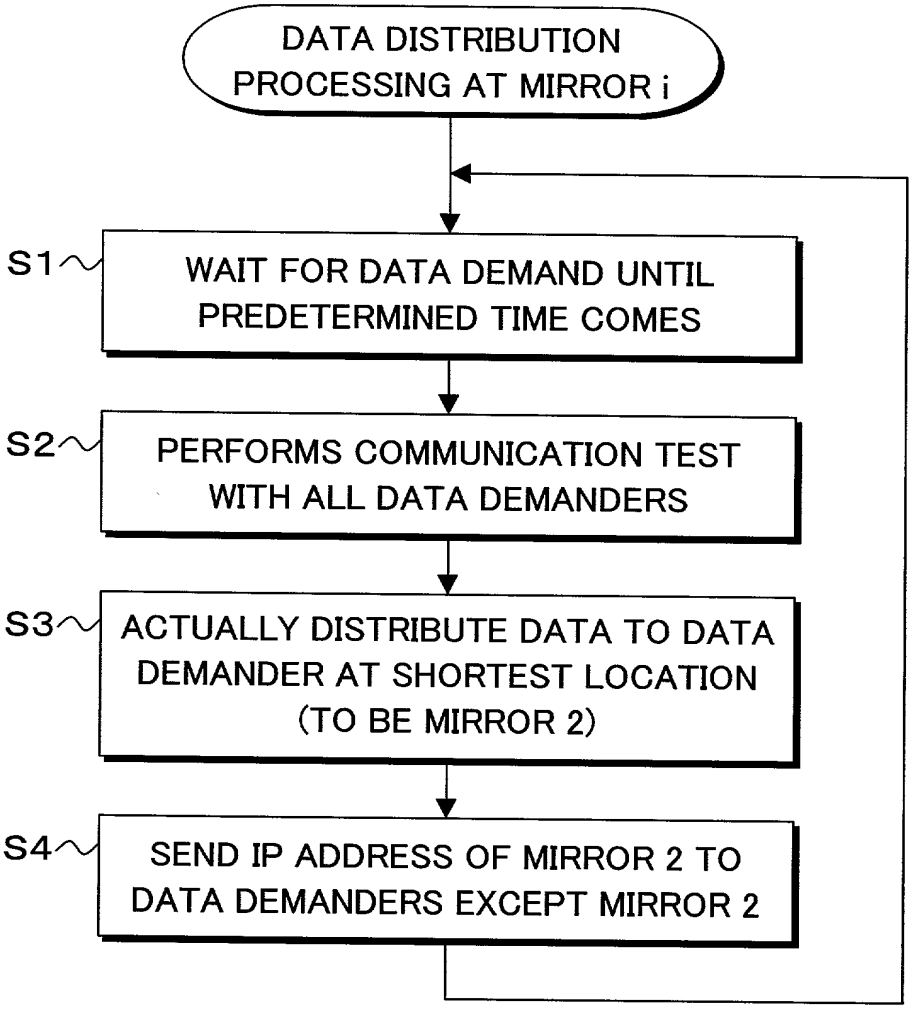
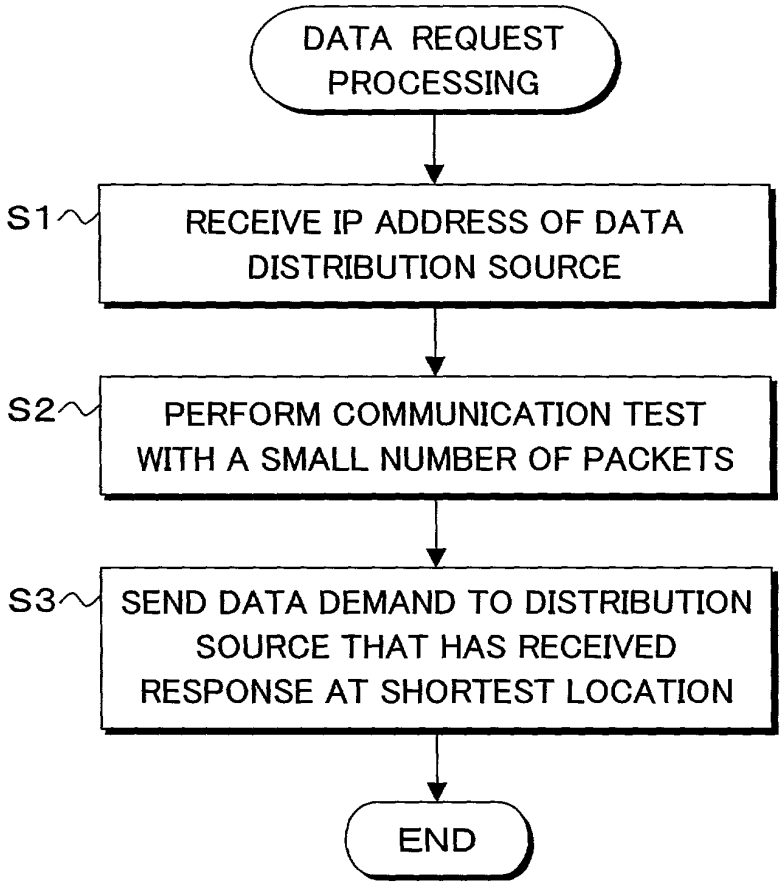

DATA DISTRIBUTION PROCESSING AT MIRROR i
S1
WAIT FOR DATA DEMAND UNTIL PREDETERMINED TIME COMES
S2
PERFORMS COMMUNICATION TEST WITH ALL DATA DEMANDERS
S3
ACTUALLY DISTRIBUTE DATA TO DATA DEMANDER AT SHORTEST LOCATION (TO BE MIRROR 2)
S4
SEND IP ADDRESS OF MIRROR 2 TO DATA DEMANDERS EXCEPT MIRROR 2

FIG. 15



JP2003-256298 A 2003.9.10

FIG. 16A

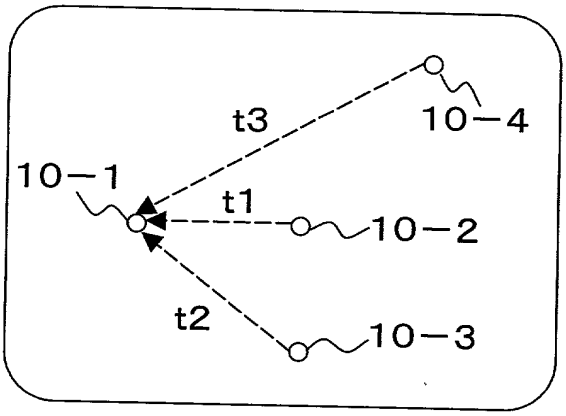


FIG. 16B

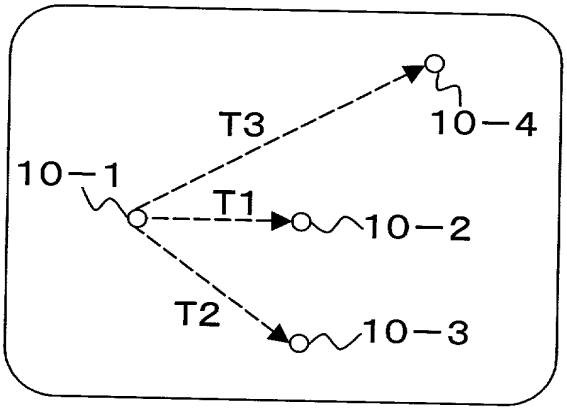


FIG. 16C

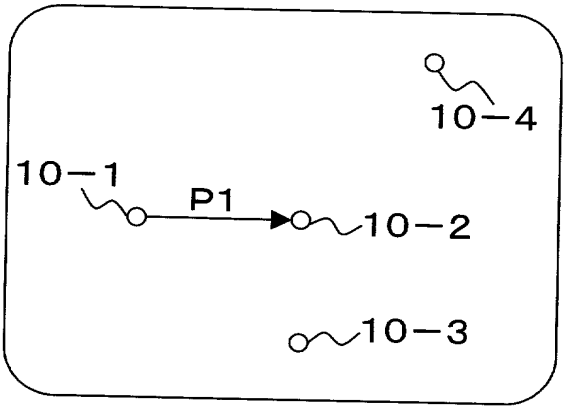


FIG. 16D

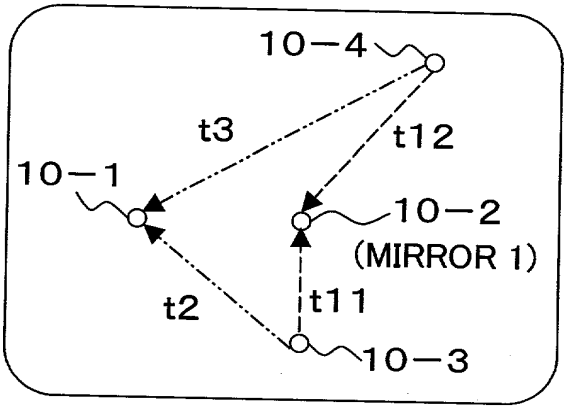


FIG. 16E

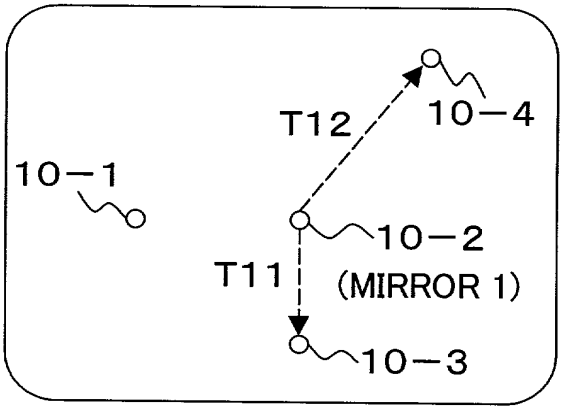


FIG. 16F

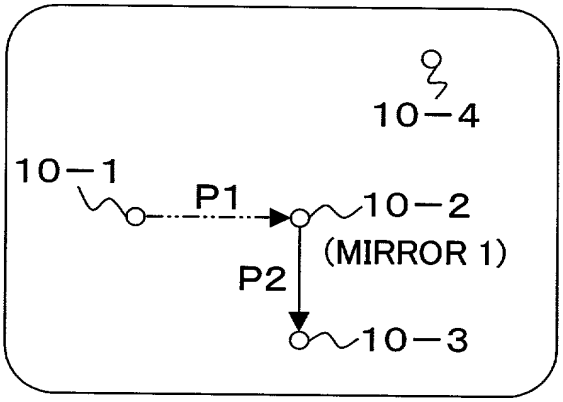


FIG. 16G

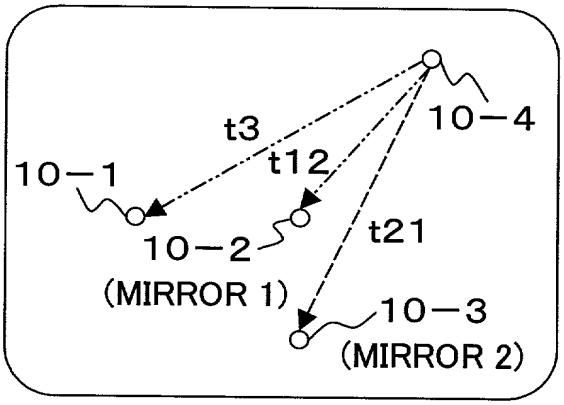
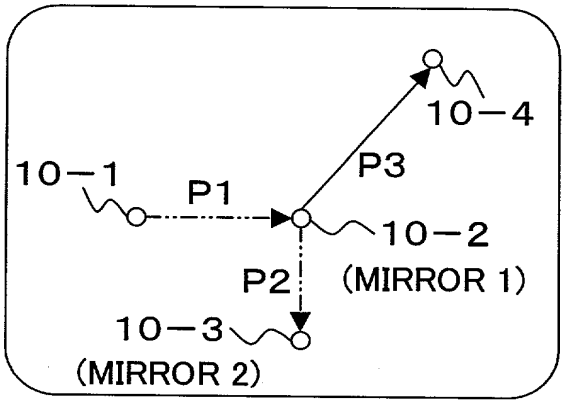


FIG. 16H



2014-05-01 15:59:48 No.4

FIG. 17

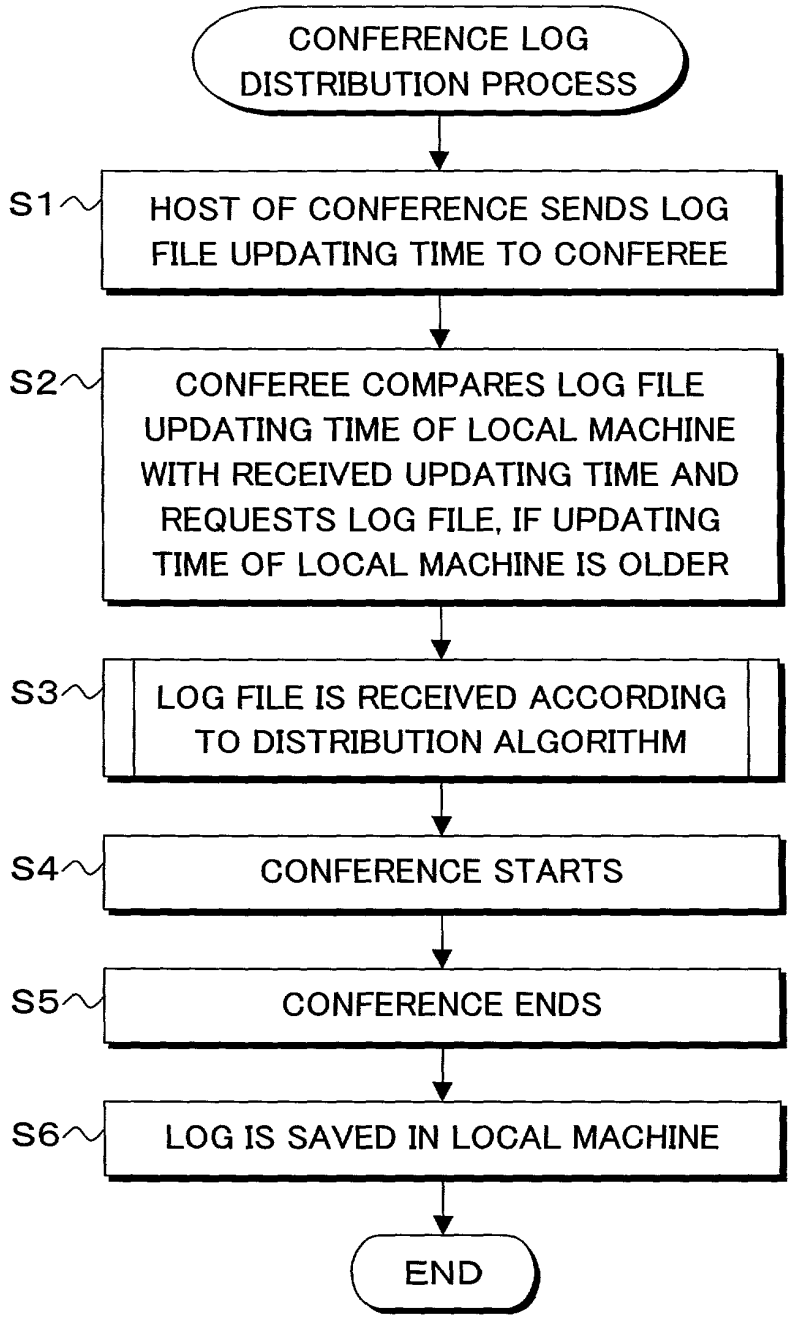

CONFERENCE LOG DISTRIBUTION PROCESS
S1
HOST OF CONFERENCE SENDS LOG FILE UPDATING TIME TO CONFEREE
S2
CONFEREE COMPARES LOG FILE UPDATING TIME OF LOCAL MACHINE WITH RECEIVED UPDATING TIME AND REQUESTS LOG FILE, IF UPDATING TIME OF LOCAL MACHINE IS OLDER
S3
LOG FILE IS RECEIVED ACCORDING TO DISTRIBUTION ALGORITHM
S4
CONFERENCE STARTS
S5
CONFERENCE ENDS
S6
LOG IS SAVED IN LOCAL MACHINE
END

FIG. 18

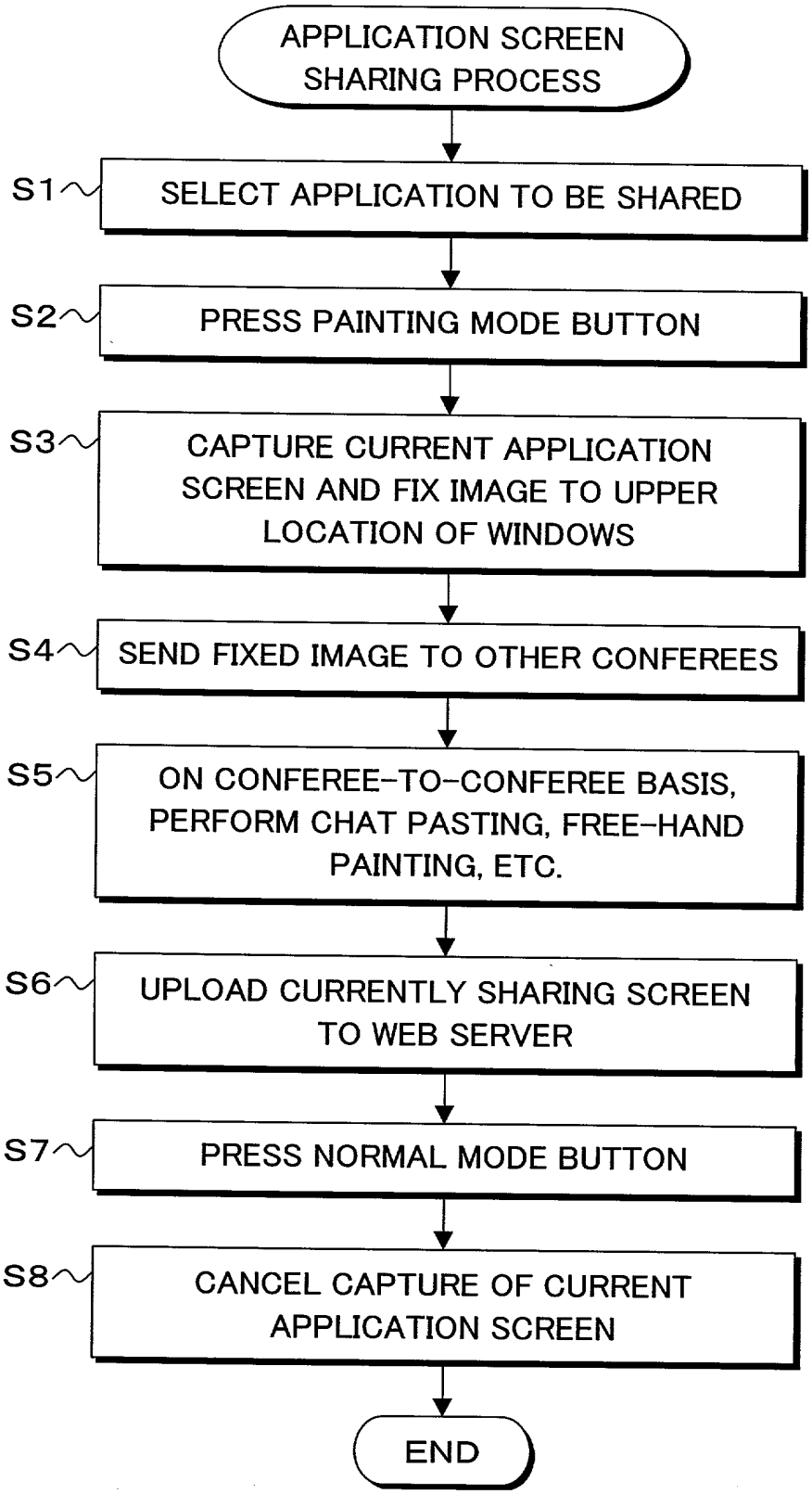
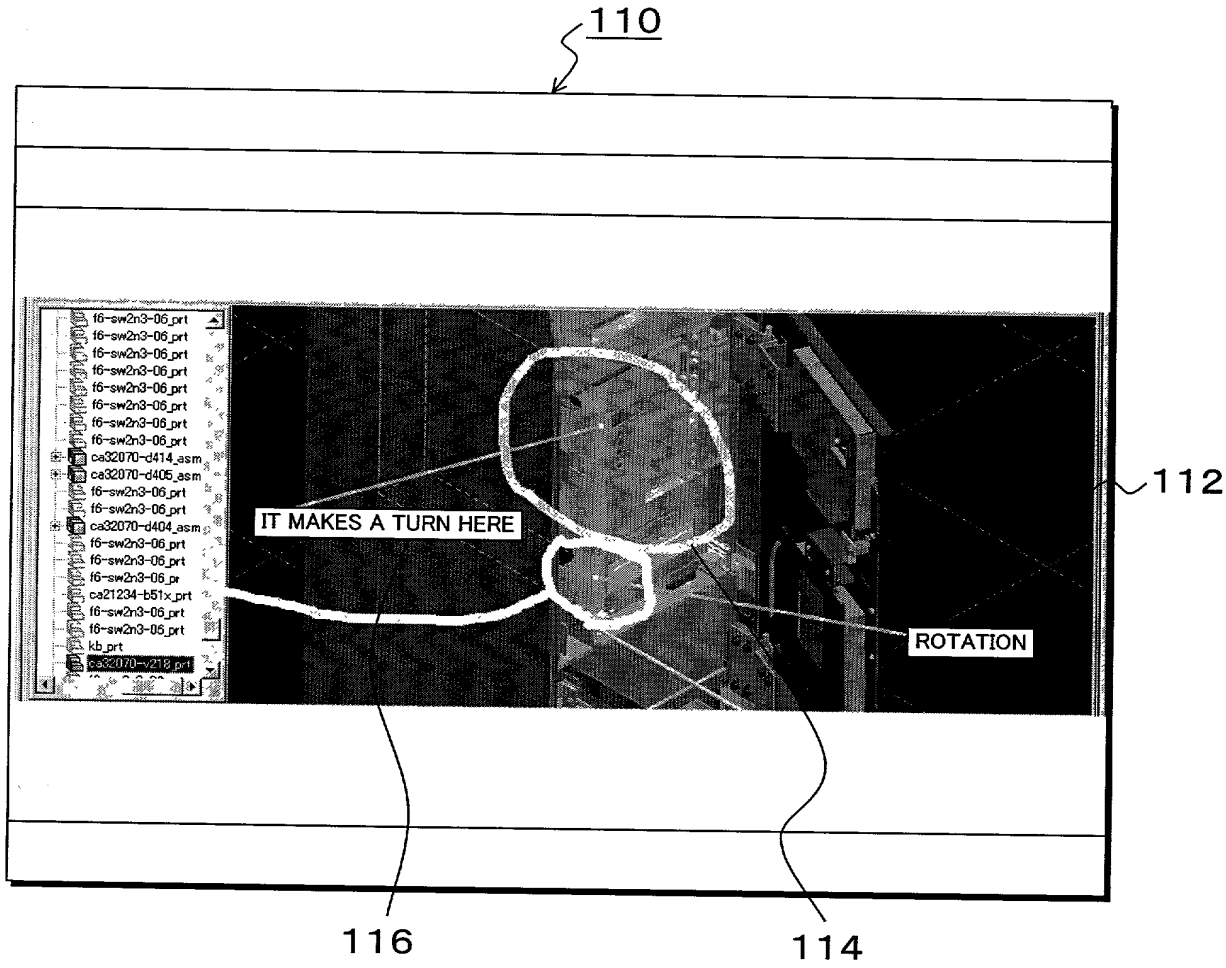

APPLICATION SCREEN SHARING PROCESS
S1
SELECT APPLICATION TO BE SHARED
S2
PRESS PAINTING MODE BUTTON
S3
CAPTURE CURRENT APPLICATION SCREEN AND FIX IMAGE TO UPPER LOCATION OF WINDOWS
S4
SEND FIXED IMAGE TO OTHER CONFEREES
S5
ON CONFEREE-TO-CONFEREE BASIS, PERFORM CHAT PASTING, FREE-HAND PAINTING, ETC.
S6
UPLOAD CURRENTLY SHARING SCREEN TO WEB SERVER
S7
PRESS NORMAL MODE BUTTON
S8
CANCEL CAPTURE OF CURRENT APPLICATION SCREEN
END

FIG. 19


110
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_prt
ca32070-d414_asm
ca32070-d405_asm
f6-sw2n3-06_prt
f6-sw2n3-06_prt
ca32070-d404_asm
f6-sw2n3-06_prt
f6-sw2n3-06_prt
f6-sw2n3-06_pr
ca21234-b51x_prt
f6-sw2n3-06_prt
f6-sw2n3-05_prt
kb_prt
IT MAKES A TURN HERE
ROTATION
112
116
114

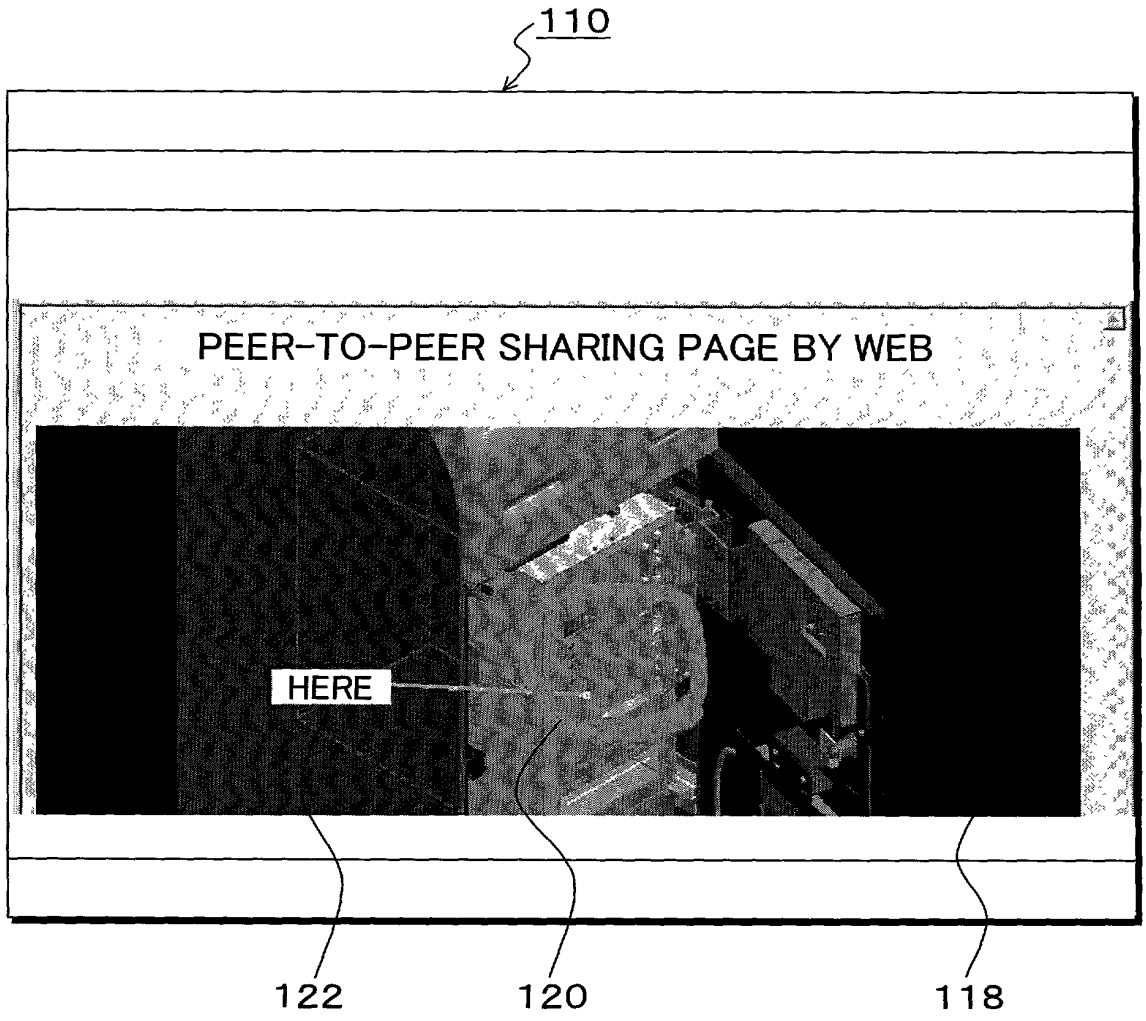



FIG. 20